

What is claim d is:

1. A method for managing an optical recording medium having at least one defective area in a user data area, said method comprising:

recording at least one temporary defect list in a temporary defect management area, wherein the at least one temporary defect list is recorded as defect management information for managing the at least one defective area; and

recording position information as at least one temporary defect list pointer, wherein said temporary defect list pointer indicates at least a position of the most recent temporary defect list in the temporary defect management area and the temporary defect list.

2. The method according to claim 1, wherein the optical recording medium is a write-once optical disc.

3. The method according to claim 2, wherein the write-once optical disc is a Blu-ray Write-Once (BD-WO) optical disc.

4. The method according to claim 1, wherein a recording size of the temporary defect list is at least one cluster.

5. The method according to claim 4, wherein the recording size of the temporary defect list ranges from one cluster to eight clusters.

6. The method according to claim 3, wherein the BD-WO optical disc is a single layer BD-WO.

7. The method according to claim 3, wherein the BD-WO optical disc is a dual layer BD-WO.

8. The method according to claim 1, wherein the temporary defect list pointer contains a single physical sector number irrespective of the size of the temporary defect list.

9. The method according to claim 1, wherein the temporary defect list pointer contains a single physical sector number for each cluster in which the temporary defect list is recorded.

10. The method according to claim 1, wherein the temporary defect list has a recording size of at least one cluster, and the temporary defect list further includes information that indicates the number of clusters currently used.

11. The method according to claim 1, wherein the temporary defect list includes a header for identifying the corresponding temporary defect list.

12. The method according to claim 11, wherein a single header is provided irrespective of the size of the temporary defect list.

13. The method according to claim 1, further comprising:

recording the most recent temporary defect list cumulatively with a previous temporary defect list in the temporary defect management area.

14. A method for managing an optical recording medium having at least one defective area in a user data area, said method comprising:

recording at least one temporary defect list in a temporary defect management area, wherein the at least one temporary defect area list is recorded as defect management information for managing the at least one defective area;

separately recording the temporary defect lists as separate defect lists for each recording unit of the temporary defective management area; and

recording position information as at least one temporary defect list pointer, wherein said temporary defect list pointer indicates at least a position of the temporary defect list for a respective recording unit of the temporary defect management area.

15. The method according to claim 14, wherein the optical recording medium is a write-once optical disc.

16. The method according to claim 15, wherein the write-once optical disc is a Blu-ray Write-Once (BD-WO) optical disc.

17. The method according to claim 14, wherein a recording size of the temporary defect list is at least one cluster.

18. The method according to claim 17, wherein the recording size of the temporary defect list ranges from one cluster to eight clusters.

19. The method according to claim 16, wherein the BD-WO optical disc is a single layer BD-WO.

20. The method according to claim 16, wherein the BD-WO optical disc is a dual layer BD-WO.

21. The method according to claim 14, wherein the temporary defect list includes a header for identifying the temporary defect list.

22. The method according to claim 21, wherein a single header is provided irrespective of the size of the temporary defect list.

23. The method according to claim 14, wherein a header for identifying the temporary defect list is recorded in a temporary disc definition structure (TDDS) area of the temporary defective management area.

24. The method according to claim 23, wherein the header is not provided for each cluster unit.

25. The method according to claim 14, further comprising:

recording the most recent temporary defect list cumulatively with a previous temporary defect list in the temporary defect management area in a single recording unit.

26. A recording medium comprising:

a user data area within a data area;

a temporary defect management area for recording defect management information, wherein the defect management information is provided for managing replacement data of at least one defective area within the user data area of the recording medium;

a first defect management area being provided in the temporary defect management area; and

a second defect management area being provided in the temporary defect management area for recording position information that indicates a position of the most recent defect list.

27. The recording medium according to claim 26, wherein the first area for defect management and the second area for defect management are recorded together in the same recording unit.

28. The recording medium according to claim 26, wherein the first defect management area is a temporary defect list (TDFL).

29. The recording medium according to claim 26, wherein the second defect management area is a temporary disc definition structure (TDDS).

30. The recording medium according to claim 26, wherein the optical recording medium is a write-once optical disc.

31. The recording medium according to claim 30, wherein the write-once optical disc is a Blu-ray Write-Once (BD-WO) optical disc.

32. The recording medium according to claim 26, wherein a recording size of the temporary defect list is at least one cluster.

33. The recording medium according to claim 32, wherein the recording size of the temporary defect list ranges from one cluster to eight clusters.

34. The recording medium according to claim 31, wherein the BD-WO optical disc is a single layer BD-WO.

35. The recording medium according to claim 31, wherein the BD-WO optical disc is a dual layer BD-WO.

36. The recording medium according to claim 26, wherein the temporary defect list includes a header for identifying the temporary defect list.

37. The recording medium according to claim 26, wherein the first defect management area is for recording the most recent temporary defect list cumulatively with a previous defect list as the defect management information.

38. A recording medium comprising:

a user data area within a data area;

a temporary defect management area for recording defect management information, wherein the defect management information is provided for managing replacement data of at least one defective area within the user data area of the recording medium;

a temporary defect list in the temporary defect management area, wherein the temporary defect list is recorded as defect management information for managing the at least one defective area; and

at least one temporary defect list pointer containing position information, wherein said temporary defect list pointer indicates at least a position of the most recent temporary defect list in the temporary defect management area.

39. The recording medium according to claim 38, wherein the optical recording medium is a write-once optical disc.

40. The recording medium according to claim 39, wherein the write-once optical disc is a Blu-ray Write-Once (BD-WO) optical disc.

41. The recording medium according to claim 39, wherein a recording size of the temporary defect list is at least one cluster.

42. The recording medium according to claim 41, wherein the recording size of the temporary defect list ranges from one cluster to eight clusters.

43. The recording medium according to claim 40, wherein the BD-WO optical disc is a single layer BD-WO.

44. The recording medium according to claim 40, wherein the BD-WO optical disc is a dual layer BD-WO.

45. The recording medium according to claim 38, wherein the temporary defect list pointer contains a single physical sector number irrespective of the size of the temporary defect list.

46. The recording medium according to claim 38, wherein the temporary defect list pointer contains a single physical sector number for each cluster in which the temporary defect list is recorded.

47. The recording medium according to claim 38, wherein the most recent temporary defect list is cumulatively recorded with a previous temporary defect list in the temporary defect management area.

48. An apparatus for managing an optical recording medium having at least one temporary defect management area, and a spare area in a data area, said apparatus comprising:

means for recording at least one temporary defect list in a temporary defect management area, wherein the at least one temporary defect list is recorded as defect management information for managing the at least one defective area; and

means for recording position information as at least one temporary defect list pointer, wherein said temporary defect list pointer indicates at least a position of the most recent temporary defect list in the temporary defect management area and the temporary defect list.

49. The apparatus for claim 48, further comprising:

means for recording the most recent temporary defect list cumulatively with a previous temporary defect list in the temporary defect management area.

50. An apparatus for managing an optical recording medium having at least one temporary defect management area, and a spare area in a data area, said apparatus comprising:

means for recording at least one temporary defect list in a temporary defect management area, wherein the at least one temporary defect area list is recorded as defect management information for managing the at least one defective area;

means for separately recording the temporary defect lists as separate defect lists for each recording unit of the temporary defective management area; and

means for recording position information as at least one temporary defect list pointer, wherein said temporary defect list pointer indicates at least a position of the temporary defect list for a respective recording unit of the temporary defect management area.

51. The apparatus for claim 50, further comprising:

means for recording the most recent temporary defect list cumulatively with a previous temporary defect list in the temporary defect management area in a single recording unit.